



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/844,665	04/30/2001	Seuk-Jin Yun	P56374	8990

7590

11/07/2002

Robert E. Bushnell  
Suite 300  
1522 K Street, N.W.  
Washington, DC 20005-1202

EXAMINER

NGHIEM, MICHAEL P

ART UNIT

PAPER NUMBER

2861

DATE MAILED: 11/07/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Applicant(s)

09/844,665

YUN, SEUK-JIN

Examiner

Michael P Nghiem

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 September 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-18 is/are allowed.
- 6) ☒ Claim(s) 1-4, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 5-7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

The Amendment filed on September 3, 2002 has been acknowledged.

#### ***Claim Objections***

1. Claims 4, 6, 7, 19, and 20 are objected to because of the following informalities:
  - claims 4, 19, 20, after "claim 1," should insert – wherein --.
  - claims 6, 7, after "claim 5," should insert – wherein --.
  - claim 20, "said elastic member" (line 2) should be – each one of said elastic members --.

Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application

Art Unit: 2861

published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or  
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1-4, 19, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Abe et al. (US 6,151,046).

Abe et al. discloses all the claimed features of the invention including:

- an electrical contacting apparatus (Figs. 13) in an ink jet printer, for contacting respective ones of a plurality of electrically conductive first contact portions of an ink cartridge (column 9, lines 53-56) with corresponding ones of a plurality of electrically conductive second contact portions (4508) of a printed circuit board (4507) installed on a carrier (4530), in order to electrically connect the ink cartridge to said printed circuit board (Fig. 7), said ink cartridge being configured to be mounted on said carrier (Fig. 7), said apparatus comprising:

- a plurality of electrically conductive spring elastic members (Fig. 15), each one of said plurality of a electrically conductive spring elastic members (column 3, lines 58-59) on said printed circuit board (Fig. 10) comprising:

- a third contact portion (4501) that forms electrical contact with a corresponding one of said plurality of said first contact portions of said ink cartridge (column 9, lines 53-56);

- a base (base including 4515) having one end (4515) electrically connected to a corresponding one of said plurality of second contact portions (Fig. 8);

- a connection portion (4514) electrically and physically connecting said third contact portion to said base (Fig. 15), said connection portion providing an elastic restoration force between said third contact portion and said base (column 3, lines 58-59), each one of said plurality of spring elastic members being formed from an integral elongated member having a bent portion (Fig. 15), said bent portion forming said connection portion (Fig. 15);

- a housing (4506) for receiving said plurality of spring elastic members and maintaining said elastic force between each one of a plurality of third contact portions and a corresponding one of a plurality of bases for each spring elastic member (Fig. 15);

- said housing having a plurality of spaces (spaces receiving contact portions, Fig. 14) for receiving respective ones of said plurality of spring elastic members and providing electrical and physical isolation between adjacent spring elastic members (Fig. 14), said housing comprising a plurality of windows (4510) exposing respective ones of said plurality of spring elastic members to the outside (Fig. 8);

- one end of each one of a plurality of bases being electrically connected to the printed circuit board by solder to form one of said plurality of second contacts (column 11, lines 5-8);

- said bent portion comprising only a single bend in each one of said plurality of elastic members, said bend providing all of said restoration force of each one of said plurality of elastic members (Fig. 15);

- each one of said plurality of elastic members being absent of a coil

spring, said elastic member being absent a rigid conductive member (Fig. 15).

***Allowable Subject Matter***

3. Claim 5-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. Claims 8-18 are allowed.

***Reasons For Allowance***

5. The combination and method as claimed wherein each one of said plurality of spring elastic members being formed of phosphor bronze plated with nickel, and each one of said plurality of third contact portions being further plated with gold (claims 5, 16) or a printed circuit board (PCB) disposed on a back side of said carrier and a housing disposed on said PCB, said housing facing a front side of said carrier (claim 8) is not disclosed, suggested, or made obvious by the prior art of record.

Art Unit: 2861

***R s p n s   t o   A r g u m e n t s***


6.     Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

***C o n t a c t   I n f o r m a t i o n***

7.     Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Nghiem whose telephone number is (703) 306-3445. The examiner can normally be reached on M-H from 6:30AM – 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached at (703) 308-3126. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-5841 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

  
**MICHAEL NGHIEM**  
**PRIMARY EXAMINER**

Michael Nghiem

November 5, 2002